Sivan Design
Corporate Overview

**Founded**
- Founded in 1999 (1996) privately held

**Core Business**
- GIS integrated IT turnkey solutions
- 3D simulation and visualization software
- Large scale mapping
- Surveying, mapping and Civil Engineering software

**Products and solutions**
- GeoERP is a GIS based IT solution suite for the management of a country’s most viable resources
- 3D GIS – 3D GIS web based/iPad Server solution
- CivilCAD 2012 – civil engineering software suite

**Worldwide Locations**
- USA, Israel, Romania, Nigeria, Portugal, India, Belgium, China, Kenya, Ghana, Ethiopia, Uganda, Zambia

**Solid Financial Backing**
- 15% Yearly Revenue Growth

**Strategic relationships**
- [esri](https://www.esri.com)
- [Autodesk](https://www.autodesk.com)
- [BRICSYS](https://www.bricsys.com)
Future Initiative
3D GIS

The next generation in Geographic Information System

3D GIS
3D GIS in the Cloud

Main Purposes

- City Planning
- Upper and underground infrastructure
- 3D Cadastre
- Highways and roads
3D GIS

Key Features

- Convert data/projects from 2D to 3D in few steps
- Purely web application (3D GIS Studio, and 3D GIS Explorer) with no installation
- Cloud computing approach
- Viewing, Analyzing and Exploring in 3D
- 3D Features
- Support for the most common data formats and Geo-Spatial protocol
- Available for iPad and mobile devices

3D GIS

Data Sources – Creating the 3D World

- Terrain – GeoTiff, DEM or TIN
- Raster – GeoTiff, ECW
- 3D Native Models – Collada, Sketch-Up, KML, Multi-Patch, OBJ
- Existing GIS data from
  - Shapefiles
  - FileGDB
  - ArcSDE
  - ORACLE Spatial
  - SQL Server Spatial
  - Web Map Services
3D GIS Application Benefits

- Development control
- Web enabled for planning consent
- Design implications
- Animation
- Faster decision making
- Landscape integration
- Work efficiency and quality assurance
- Infrastructure Coordination
- Safety audits
- Underground Infrastructure Coordination
- Traffic arrangements
- Spatial Parcels and Sub Parcels
- 3D boundary buffers
- Underground expropriation
- Level based topological rules

City Planning 3D GIS

Main Advantages

- Development control through 3D Visualization –
  - Existing Vs. Design test-case scenarios
  - Billboards and Masts
  - Skyline effects
- Web Enabled –
  - Support local governments in achieving planning consents with communities and industries
- Design Implications –
  - Shadow analysis
  - Line of Sight Analysis
- Animation –
  - 3D flythrough animations for various uses such as touring
Roads 3D GIS
Main Advantages

- **Decision Making Process** –
  - Detailed 3D model of the designated road
  - Real-time information per spatial object (land owner, zoning, etc.)
  - Birds eye view clearer for the non-technical

- **Landscape integration** –
  - Nature environmental costs
  - Querying land culture

- **Infrastructure Coordination** –
  - Road affect on existing infrastructure
  - Maintaining infrastructure safety buffers

- **Safety Audits** –
  - Line-of-sight and visibility region checks

- **Work efficiency** –
  - Automated quality assurance tests
  - Reducing possible human errors

Infrastructure 3D GIS
Main Advantages

- **Underground Infrastructure Coordination** –
  - Avoiding breakdown maintenance
  - Efficient preventive maintenance
  - Collision free planning

- **Design** –
  - 3D Layers inspection
  - Slopes and minimum distances
Cadastre 3D GIS
Main Advantages

- Upper and Underground Cadastre –
  - Spatial lot, parcel, and sub-parcel
  - Displacement distances
  - Spatial registration plan

- 3D boundary buffers – of spatial lots, parcels, and sub-parcels

- Underground expropriation – of spatial lots
- Level based topological rules – as a result of subterranean space changes